

## CLAIMS

What is claimed is:

1. An expression vector comprising the nucleic acid sequence as illustrated in SEQ ID NO.: 1  
5 or 3 or a fragment thereof.
2. The expression vector of claim 1 wherein the vector is a plasmid or a viral vector.
3. The expression vector of claim 2 wherein the viral vector is selected from the group  
consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated  
virus.
- 10 4. The expression vector of claim 3 wherein the viral vector is a poxvirus selected from the  
group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox,  
and TROVAC.
5. The expression vector of claim 4 wherein the viral vector is a poxvirus selected from the  
group consisting of NYVAC, ALVAC, and ALVAC(2).
- 15 6. The expression vector of claim 1 further comprising at least one additional tumor-associated  
antigen.
7. The expression vector of claim 6 wherein the vector is a plasmid or a viral vector.
8. The expression vector of claim 7 wherein the viral vector is selected from the group  
consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated  
20 virus.
9. The expression vector of claim 8 wherein the viral vector is a poxvirus selected from the  
group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox,  
and TROVAC.
10. The expression vector of claim 9 wherein the viral vector is a poxvirus selected from the  
25 group consisting of NYVAC, ALVAC, and ALVAC(2).
11. The expression vector of claim 1 further comprising at least one nucleic sequence encoding  
an angiogenesis-associated antigen.
12. The expression vector of claim 11 wherein the vector is a plasmid or a viral vector.
13. The expression vector of claim 12 wherein the viral vector is selected from the group  
30 consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated  
virus.

14. The expression vector of claim 13 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
15. The expression vector of claim 14 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
16. The expression vector of claim 6 further comprising at least one nucleic sequence encoding an angiogenesis-associated antigen.
17. The expression vector of claim 16 wherein the vector is a plasmid or a viral vector.
18. The expression vector of claim 17 wherein the viral vector is selected from the group consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
19. The expression vector of claim 17 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
20. The poxvirus of claim 18 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
21. The expression vector of claim 1, 6, 11 or 16 further comprising at least one nucleic acid sequence encoding a co-stimulatory component.
22. The expression vector of claim 22 wherein the vector is a plasmid or a viral vector.
23. The expression vector of claim 23 wherein the viral vector is selected from the group consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
24. The expression vector of claim 24 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
25. The poxvirus of claim 18 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
26. A composition comprising an expression vector in a pharmaceutically acceptable carrier, said vector comprising the nucleic acid sequence shown in SEQ ID NO.: 1 or 3 or a fragment thereof.
27. The expression vector of claim 26 wherein the vector is a plasmid or a viral vector.

28. The expression vector of claim 27 wherein the viral vector is selected from the group consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
29. The expression vector of claim 28 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
30. The poxvirus of claim 29 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
31. A method for preventing or treating cancer comprising administering to a host an expression vector comprising the nucleic acid sequence illustrated in SEQ ID NO.: 1 or 3 or a fragment thereof.
32. The expression vector of claim 31 wherein the vector is a plasmid or a viral vector.
33. The expression vector of claim 32 wherein the viral vector is selected from the group consisting of poxvirus, alphavirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
34. The expression vector of claim 33 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
35. The poxvirus of claim 34 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
36. A peptide derived from BFA4 as shown in Table V, VI or VII.
37. A method for immunizing a host against the tumor antigen BFA4 comprising administering to the patient a peptide shown in Table V, VI or VII, either alone or in combination with another agent, where the individual components of the combination are administered simultaneously or separately from one another.
38. A peptide derived from BCY1 as shown in Table VIII or IX.
39. A method for immunizing a host against the tumor antigen BCY1 comprising administering to the patient a peptide shown in Table VIII or IX, either alone or in combination with at least one other agent, where the individual components of the combination are administered simultaneously or separately from one another.